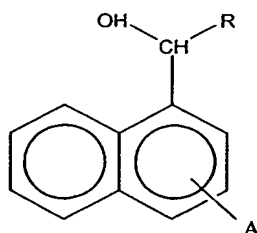


WHAT IS CLAIMED IS:

1 1. A method of treating cancer comprising administering to a patient in
 2 need thereof a therapeutically effective amount of a composition comprising a compound
 3 having the formula (I):



(I)

4
 5
 6 in which A represents from one to three groups selected from halogen and
 7 trifluoromethyl, and in which the quinoline ring is optionally further substituted by one or
 8 more other moieties, and R is (a) NR_1R_2 in which R_1 and R_2 are independently hydrogen or
 9 $\text{C}_1\text{-C}_4$ alkyl; (b) 2-piperidyl, (c) 2-pyridyl, and (d) 5-(ethyl or vinyl)-quinuclidin-4-yl; an
 10 enantiomer of such a compound; a pharmaceutically acceptable salt of such a compound or of
 11 an enantiomer thereof; a prodrug of such a compound or of an enantiomer thereof; a
 12 metabolite of such a compound or of an enantiomer thereof; and mixtures of two or more of
 13 the foregoing.

1 2. A method according to claim 1 in which A represents from one to three
 2 chloro or trifluoromethyl groups, and R is (a) NR_1R_2 in which R_1 and R_2 are independently
 3 hydrogen or $\text{C}_3\text{-C}_4$ alkyl; (b) 2-piperidyl, (c) 2-pyridyl, and (d) 5-(ethyl or vinyl)-quinuclidin-
 4 4-yl.

1 3. A method according to claim 1 in which the quinoline ring is further
 2 substituted by a methoxy, methyl, phenyl, halophenyl or trifluoromethyl group.

1 4. A method according to claim 1 in which the quinoline ring is
 2 substituted by from one to three groups selected from halogen and trifluoromethyl and is not
 3 further substituted.

1 5. A method according to claim 1 in which the compound is selected
 2 from mefloquine, enantiomers of mefloquine; prodrugs of mefloquine or of its enantiomers;
 3 metabolites of mefloquine or of its enantiomers; pharmaceutically acceptable salts of

4 mefloquine, of mefloquine enantiomers, of mefloquine prodrugs or of mefloquine
5 metabolites, and mixtures thereof.

1 6. A method according to claim 1 in which the cancer is a cancer of the
2 hematological system.

1 7. A method according to claim 1 in which the cancer is a cancer of the
2 hematopoietic system.

1 8. A method according to claim 1 in which the cancer is selected from
2 leukemias, myelomas and lymphomas.

1 9. A method according to claim 1 in which the cancer is a cancer that is
2 in the form of a solid tumor.

1 10. A method according to claim 1 in which the cancer is selected from
2 lung cancer, renal cancer, melanoma, breast cancer, colon cancer and ovarian cancer.

1 11. A method according to claim 1 in which the cancer is non-small lung
2 cancer.

3 12. A method according to claim 1 in which the cancer is ovarian
4 carcinoma.

5 13. A method according to claim 1 in which the cancer is melanoma.

6 14. A method according to claim 1 in which the cancer is colon cancer.

7 15. A method according to claim 1 in which the cancer is a leukemia.

8 16. A method according to claim 1 in which the cancer is chronic
9 lymphocytic leukemia.

10 17. A method according to claim 1 comprising administering mefloquine
11 to a patient.

1 18. A method according to claim 1 comprising administering an
2 enantiomer of mefloquine to a patient.

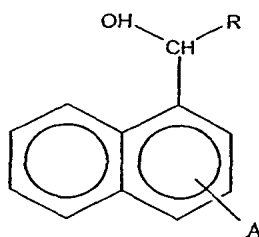
1 19. A method according to claim 1 comprising administering to a patient a
2 prodrug of mefloquine or of a mefloquine enantiomer.

20. A method according to claim 1 comprising administering to a patient a metabolite of mefloquine or of a mefloquine enantiomer.

21. A method according to claim 1 comprising administering to a patient a salt of (a) mefloquine, (b) a mefloquine enantiomer, (c) a mefloquine prodrug or (d) a mefloquine metabolite.

22. A method according to claim 21 in which the therapeutically effective amount is an amount that will produce a blood concentration of mefloquine of 10 μ M or less.

23. A composition for treating cancer comprising (i) an effective amount of a compound having the formula (I):



(I)

in which A represents from one to three groups selected from halogen and trifluoromethyl, and in which the quinoline ring is optionally further substituted by one or more other moieties, and R is (a) NR_1R_2 in which R_1 and R_2 are independently hydrogen or $\text{C}_1\text{-C}_4$ alkyl; (b) 2-piperidyl, (c) 2-pyridyl, and (d) 5-(ethyl or vinyl)-quinuclidin-4-yl; an enantiomer of such a compound; a pharmaceutically acceptable salt of such a compound or of an enantiomer thereof; a prodrug of such a compound or of an enantiomer thereof; a metabolite of such a compound or of an enantiomer thereof; or a mixture of two or more of the foregoing, and (ii) a pharmaceutically acceptable carrier.

24. A composition according to claim 23 in which A represents from one to three chloro or trifluoromethyl groups, and R is (a) NR_1R_2 in which R_1 and R_2 are independently hydrogen or $\text{C}_3\text{-C}_4$ alkyl; (b) 2-piperidyl, (c) 2-pyridyl, and (d) 5-(ethyl or vinyl)-quinuclidin-4-yl.

25. A composition according to claim 23 in which the quinoline ring is further substituted by a methoxy, methyl, phenyl, halophenyl or trifluoromethyl group.

1 26. A composition according to claim 23 in which the quinoline ring is
2 substituted by from one to three groups selected from halogen and trifluoromethyl and is not
3 further substituted.

1 27. A composition according to claim 23 in which the compound is
2 selected from mefloquine, enantiomers of mefloquine; prodrugs of mefloquine or of its
3 enantiomers; metabolites of mefloquine or of its enantiomers; pharmaceutically acceptable
4 salts of mefloquine, of mefloquine enantiomers, of mefloquine prodrugs or of mefloquine
5 metabolites, and mixtures thereof.

1 28. A composition according to claim 23 that is in a form suitable for oral
2 administration.

1 29. A kit for treating cancer comprising a composition according to claim
2 23.

1 30. A kit according to claim 29 in which A represents from one to three
2 chloro or trifluoromethyl groups, and R is (a) NR_1R_2 in which R_1 and R_2 are independently
3 hydrogen or C_3 - C_4 alkyl; (b) 2-piperidyl, (c) 2-pyridyl, and (d) 5-(ethyl or vinyl)-quinuclidin-
4 4-yl.

1 31. A kit according to claim 29 in which the quinoline ring is further
2 substituted by a methoxy, methyl, phenyl, halophenyl or trifluoromethyl group.

1 32. A kit according to claim 29 in which the quinoline ring is substituted
2 by from one to three groups selected from halogen and trifluoromethyl and is not further
3 substituted.

1 ³³
~~34~~. A kit according to claim 29 in which the compound is selected from
2 mefloquine, enantiomers of mefloquine; prodrugs of mefloquine or of its enantiomers;
3 metabolites of mefloquine or of its enantiomers; pharmaceutically acceptable salts of
4 mefloquine, of mefloquine enantiomers, of mefloquine prodrugs or of mefloquine
5 metabolites, and mixtures thereof.
6